

Colbert
8.3

0530533

**ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99219
509-534-0161**

REPORT TO: Spokane County Dept. of Utilities
N. 811 Jefferson
Spokane, WA 99210

LAB NO: 33768-90
DATE: 7-18-90
SAMPLE DATE: 7-6-90

ATTN: Bruce Austin

P.O.#: JULY

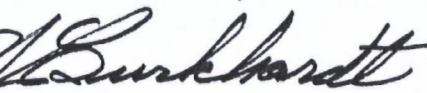
DESCRIPTION: Perform Volatile Organic Scan on submitted samples from the wells in the Colbert Landfill area. Analyses performed by methods outlined in proposal of December 8th, 1988.

DETECTION LIMITS: 1 part per billion

ND: Not Detected

This document contains eight pages.

Respectfully Submitted,
ABC LABORATORIES, INC.



W.E. Burkhardt
Manager

USEPA SF



1481696

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33768-90

NAME	Blank	Blank	Blank	Blank	Blank	Blank
WELL NO.						
DATE:	7-09-90	7-09-90	7-10-90	7-10-90	7-11-90	7-11-90
Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,-richloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33768-90

NAME	Travel Blank	Travel Blank	(b) (6)			
WELL NO.	7-05-90	7-10-90	1573C-10	1073G-1	1573H-2	1173Q-1
DATE:	7-11-90	7-11-90	7-10-90	7-9-90	7-10-90	7-10-90

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,-richloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33768-90

NAME

(b) (6)

WELL NO.	0273E-1	0273E-1 Confirming	1173B-1	1173B-1 Confirming	1473C-1	1573R-3
DATE:	7-9-90	7-9-90	7-10-90	7-10-90	7-11-90	7-9-90
Chloroform	ND	ND	1	<1	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	1	<1	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	192	179	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33768-90

(b) (6)

NAME

WELL NO.	0273E-2	1573C-3	1073M-2	1573B-4	1573B-4 Confirming	1573F-4
DATE:	7-9-90	7-10-90	7-11-90	7-11-90	7-11-90	7-11-90
Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	30	27	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,-richloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33768-90

NAME

(b) (6)

WELL NO.

1073E-2

1073E-2
Confirming

1473D-1

1573C-15

0273E-3

0273E-3
Confirming

DATE:

7-10-90

7-10-90

7-9-90

7-11-90

7-9-90

7-9-90

Chloroform

ND

ND

ND

ND

ND

ND

1,1-Dichloroethane

ND

ND

ND

ND

1

<1

1,1-Dichloroethylene

ND

ND

ND

ND

2

1

Trichloroethylene

ND

ND

ND

ND

ND

ND

1,1,1-Trichloroethane

42

40

ND

ND

197

186

Tetrachloroethylene

ND

ND

ND

ND

ND

ND

Methylene Chloride

ND

ND

ND

ND

ND

ND

1-Pentene

ND

ND

ND

ND

ND

ND

Cyclopentane

ND

ND

ND

ND

ND

ND

Trans 2-Hexene

ND

ND

ND

ND

ND

ND

Benzene

ND

ND

ND

ND

ND

ND

Toluene

ND

ND

ND

ND

ND

ND

Ethylene Dibromide

ND

ND

ND

ND

ND

ND

Ethyl Benzene

ND

ND

ND

ND

ND

ND

M-xylene

ND

ND

ND

ND

ND

ND

O-xylene

ND

ND

ND

ND

ND

ND

P-xylene

ND

ND

ND

ND

ND

ND

Cumene

ND

ND

ND

ND

ND

ND

1,2,4-Trimethyl Benzene

ND

ND

ND

ND

ND

ND

P-cymene

ND

ND

ND

ND

ND

ND

Chlorobenzene

ND

ND

ND

ND

ND

ND

M-dichlorobenzene

ND

ND

ND

ND

ND

ND

O-dichlorobenzene

ND

ND

ND

ND

ND

ND

P-dichlorobenzene

ND

ND

ND

ND

ND

ND

Methyl Ethyl Ketone

ND

ND

ND

ND

ND

ND

Acetone

ND

ND

ND

ND

ND

ND

Bromodichloromethane

ND

ND

ND

ND

ND

ND

Bromoform

ND

ND

ND

ND

ND

ND

Carbon Tetrachloride

ND

ND

ND

ND

ND

ND

Dibromochloromethane

ND

ND

ND

ND

ND

ND

1,2-Dichloroethane

ND

ND

ND

ND

ND

ND

Trans 1,2-Dichloroethane

ND

ND

ND

ND

ND

ND

Trans 1,2-Dichloroethylene

ND

ND

ND

ND

ND

ND

1,2-Dichloropropane

ND

ND

ND

ND

ND

ND

Cis 1,3-Dichloropropylene

ND

ND

ND

ND

ND

ND

Trans 1,3-Dichloropropylene

ND

ND

ND

ND

ND

ND

1,1,2,2-Tetrachloroethane

ND

ND

ND

ND

ND

ND

1,1,2,-richloroethane

ND

ND

ND

ND

ND

ND

2-Chloroethylvinyl Ether

ND

ND

ND

ND

ND

ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33768-90

NAME

(b) (6)

WELL NO.

DATE:

1573K-1

7-11-90

1173F-2

7-11-90

1173F-2

7-11-90

0373L-1

7-10-90

0373L-1

7-10-90

0273D-6

7-9-90

Chloroform	ND	1	<1	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	23	24	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33768-90

NAME

(b) (6)

WELL NO.

1573C-7

DATE:

7-10-90

Chloroform	ND
1,1-Dichloroethane	ND
1,1-Dichloroethylene	ND
Trichloroethylene	ND
1,1,1-Trichloroethane	ND
Tetrachloroethylene	ND
Methylene Chloride	ND
1-Pentene	ND
Cyclopentane	ND
Trans 2-Hexene	ND
Benzene	ND
Toluene	ND
Ethylene DiBromide	ND
Ethyl Benzene	ND
M-xylene	ND
O-xylene	ND
P-xylene	ND
Cumene	ND
1,2,4-Trimethyl Benzene	ND
P-cymene	ND
Chlorobenzene	ND
M-dichlorobenzene	ND
O-dichlorobenzene	ND
P-dichlorobenzene	ND
Methyl Ethyl Ketone	ND
Acetone	ND
Bromodichloromethane	ND
Bromoform	ND
Carbon Tetrachloride	ND
Dibromochloromethane	ND
1,2-Dichloroethane	ND
Trans 1,2-Dichloroethane	ND
Trans 1,2-Dichloroethylene	ND
1,2-Dichloropropane	ND
Cis 1,3-Dichloropropylene	ND
Trans 1,3-Dichloropropylene	ND
1,1,2,2-Tetrachloroethane	ND
1,1,2,-richloroethane	ND
2-Chloroethylvinyl Ether	ND

05-01-89

PERFORMANCE STANDARDS

DEEP / SHALLOW
07/18/90
LAB #33768-90

MAXIMUM ALLOWABLE CONTAMINANT CONCENTRATIONS



SYMBOL	LAYER	DESCRIPTION
	ROADS	EXISTING ROADS
	TO LINE	2" CONTAIN LINE
	POWER	TRANSMISSION & RAR
	WATER	RIVERS & STREAMS
	SEDS	1/4" SECTIONS
	OF EXC	2" RAIL
	RAILROAD	COALS UNDER 2" RAIL
6	REED	WALLS OVER 2" RAIL
2	OTHER	WALLS OVER OTHER ADJUST
		ACQUAINT COAST COAST

NOTE:
FOR IDENTIFICATION OF WELLS
SEE WELL OWNER/MANOR LEGEND

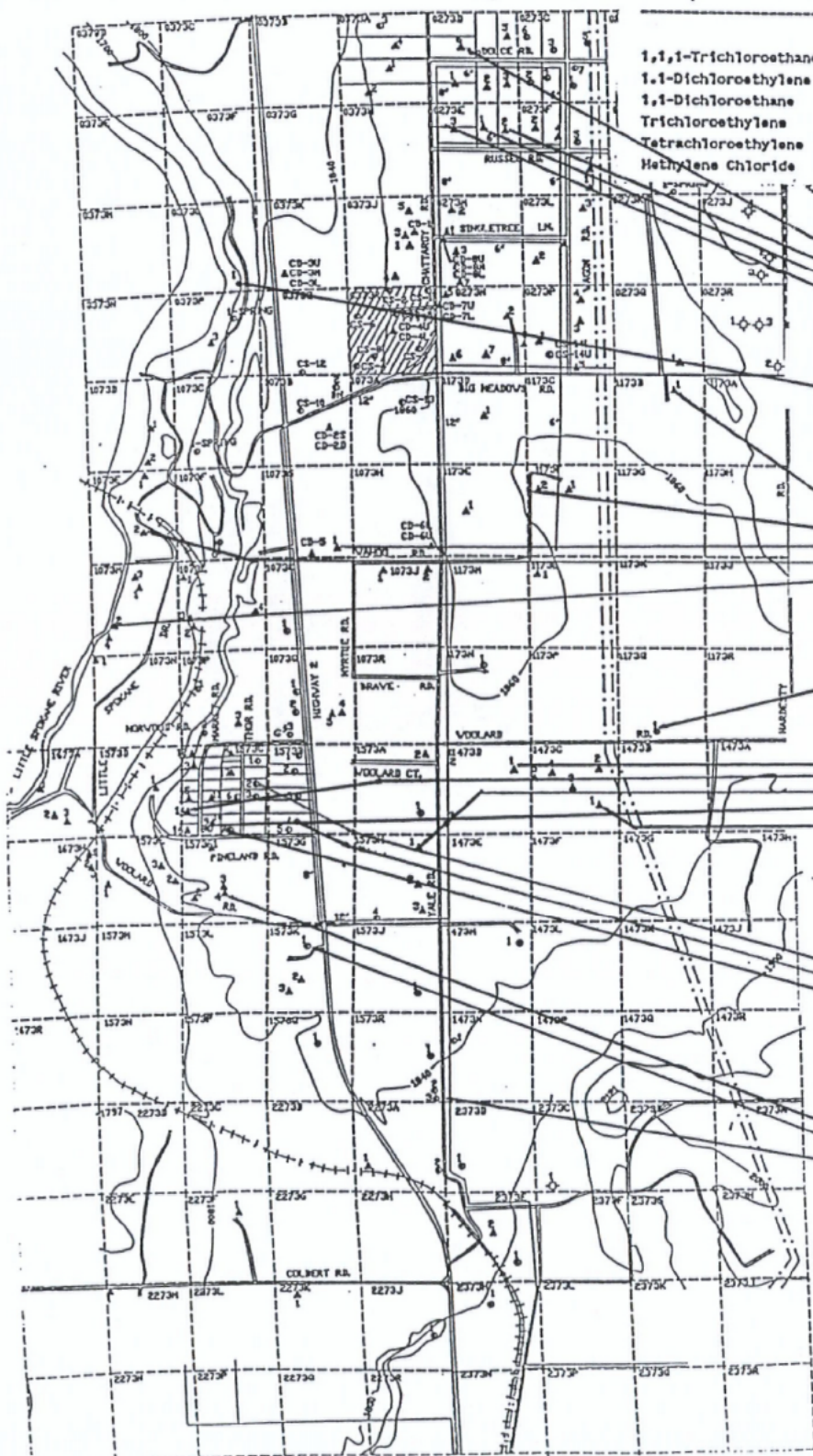
Health Protection Levels^a

* Health Protection Levels are not to be exceeded, during operational life of remedial action in effluents from groundwater treatment systems. Permanent reduction of contaminant concentrations below these levels throughout the site will indicate completion of the remedial action.

Contaminant

Maximum Concentration
parts per billion (ug/l)

• **Explain**



1,1,1-Trichloroethane (TCA)	200.0	HCL
1,1-Dichloroethylene (DCE)	7.0	HCL
1,1-Dichloroethane (DCA)	4050.0	HAG
Trichloroethylene (TCE)	5.0	HCL
Tetrachloroethylene (PCE or TETRA CL)	0.7	10 - 8 cancer risk
Methylene Chloride (HC)	2.5	10 - 8 cancer risk

JUL 10, 90 022708-90 WELL # 111-TCA 11-UCB 11-DCA TCE TETRACL CHLOROFORM METH CHLO

02730-6	NO	NO	NO	NO	NO	NO	NO
02736-2	NO	NO	NO	NO	NO	NO	NO
02736-1	192	1	NO	NO	NO	NO	NO
02736-3	197	2	1	NO	NO	NO	NO

JUL 18, 90 #33758-90 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR

STERLING SPRINGS	Q373L-12	24	NO	NO	NO	NO	NO	NO
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JUL 30, 80 832768-90 WELLS # 111-TGA 11-DCE 11-DCA TCE TETRACL CHLOROFORM HEPTH CHLORO

(b) (6)	1173R-1	NO	NO	NO	NO	NO	1	NO
	1173F-2	NO	NO	NO	NO	NO	1	NO
	1973Q-1	NO	NO	NO	NO	NO	NO	NO
	1973K-2	NO	NO	NO	NO	NO	NO	NO
	1973H-2	NO	NO	NO	NO	NO	NO	NO

JUL 18, 90 #33768-90 WELL # 111-TCA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLO

(b) (6) 1172Q-1 NO NO NO NO NO NO NO

JUL 18, 80 #12768-90 WELL # 111-TGA 11-DCE 11-DGA TCE TETRACL CHLOROFORM METH CHLOR

(b) (6)	1122Q-1	NO	NO	NO	NO	NO	NO
	1122G-15	NO	NO	NO	NO	NO	NO
	1122H-2	NO	NO	NO	NO	NO	NO
(b) (6)	1122G-19	NO	NO	NO	NO	NO	NO
(b) (6)	1122G-1	NO	NO	NO	NO	NO	NO

JUN 18, 90 #232748-90 WELL # 111-TGA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHL

(b)	1573G-3	NO	NO	NO	NO	NO	NO
	1573G-4	NO	NO	NO	NO	NO	NO
(6)	1573G-7	NO	NO	NO	NO	NO	NO

JUL 18, 90 #33768-90 WELL # 111-TGA 11-DCE 11-DGA TCE TETRACL CHLOROFORM METH CH

(b) (6)

1573F-4	NO	NO	NO	NO	NO	NO	NO
1573K-1	NO	NO	NO	NO	NO	NO	NO
1573R-2	NO	NO	NO	NO	NO	NO	NO